

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)



Applicant's or agent's file reference 151446/EC/KR	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NO 02/00313	International filing date (day/month/year) 06.09.2002	Priority date (day/month/year) 06.09.2002
International Patent Classification (IPC) or both national classification and IPC G06F13/40		
Applicant TELEFONAKTIEBOLAGET LM ERICSSON et al.		

- This International preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 18.03.2004	Date of completion of this report 22.04.2004
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NO 02/00313**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-8 as originally filed

Claims, Numbers

1-11 as originally filed

Drawings, Sheets

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	1-9
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: US-A-4 791 629 (BURNS C A ET AL) 13 December 1988 (1988-12-13).

1. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and shows anode of a communication network, said node comprising one time-slot bus transferring frames from a number of serial input lines located on a receiving side of the node to a number of serial output lines located on the transmitting side of the node in two data buffers for each time-slot bus at the receiving side buffering the frames from the input lines before transmission.
2. The subject-matter of claim 1 differs from this known arrangement by the features of claim 1 reciting "a connection table for each time-slot bus at the receiving side, each entry in the connection table containing at least a data address pointing to a byte in the associated data buffer, the entries are arranged in the same order as their corresponding bytes are to be transferred on the data bus, and a counter, synchronized to a clock used by the time-slot bus for transmission of time slots, indicating which byte in the associated data buffer that presently is to be read out from the data-bus buffer into a time slot in the associated data bus by indexing the entries of the connection table.
3. The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as the limitations in the flexibility of synchronous digital switches with respect to minimum delay and configuration flexibility when combined with a non-blocking concept, multi-slot switching, high capacity and high reliability. In TDM buses, the transition of data frames in the switches is often executed by means of time slot buses (TDMs) located on the back plane of the switches. The prior art addressing method presents limitations on how time slots can be cross connected (switched) between a plurality of line boards. It is, for instance, not described how to change

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the order of the time slots.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) since not suggested in the available prior art.

4. Claims 2 to 9 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.